

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of claims in the application.

1 (currently amended). An apparatus for controlling supplemental heat in a refrigerator or freezer comprising:

a heating unit disposed to heat a door seal mating surface of the refrigerator or freezer body, the door seal mating surface having a surface temperature;

a sensor assembly unit configured to output at least a ~~calculated~~ dew point-derived value and a ~~measured value~~ an ambient temperature, the sensor assembly comprising;

an ambient temperature sensor;

a surface temperature sensor; and

an ambient relative humidity sensor;

a switching unit that switches the heating unit on and/or off; and

a control unit that controls the switching unit in response to the sensor assembly unit, wherein the control unit enacts the switching unit to switch the heating unit on when the surface temperature is less than or equal to the ~~calculated~~ dew point-derived value, and to switch the heating unit off when the surface temperature attains the ~~measured value~~ ambient temperature.

2-3 (canceled).

4 (original). The apparatus of claim 1, further comprising:

a door;

a door latch assembly; and

a door latch cover assembly.

5 (original). The apparatus of claim 4, wherein the sensor assembly unit is installed within an interior portion of the door latch cover assembly.

6 (canceled).

7 (previously presented). The apparatus of claim 1, wherein the control unit operates automatically.

8 (previously presented). The apparatus of claim 1, further comprising an electromechanical valve which is opened to activate the supplemental heat.

9 (previously presented). The apparatus of claim 1, wherein the supplemental heat comprises:
heat refrigeration gas.

10 (previously presented). The apparatus of claim 1, wherein the switching unit further comprises:
an electrical heater.

11 (previously presented). A method of controlling supplemental heat in a refrigerator or freezer comprising:

(a) reading a first surface temperature measurement of a cabinet surface of a refrigerator or freezer body;

(b) reading a first ambient temperature measurement;

(c) reading an ambient relative humidity measurement;

(d) calculating a dew point from the first ambient temperature measurement and the ambient relative humidity;

(e) making a first determination of whether the first surface temperature measurement is at a first acceptable level relative to the dew point;

(f) activating a heating unit if the first determination is not at the first acceptable level;

(g) reading a second surface temperature measurement of the cabinet surface;

(h) reading a second ambient temperature measurement;

(i) making a second determination of whether the second surface temperature measurement is at a second acceptable level relative to the second ambient temperature measurement; and

(j) deactivating the heating unit if the second determination is at the second acceptable level.

12-13 (canceled).

14 (previously presented). The method of claim 11, further comprising continually supplying supplemental heat if the second surface temperature measurement is not equal to the second ambient temperature measurement.

15 (previously presented). A system for controlling supplemental heat in a refrigerator or freezer comprising:

means for reading a first cabinet surface temperature measurement adjacent to a seal of a door of the refrigerator or freezer body;

means for reading a first ambient temperature measurement;

means for reading an ambient relative humidity measurement;

means for calculating a dew point from the first ambient temperature measurement and the first ambient relative humidity measurement;

means for making a first determination of whether the first cabinet surface temperature measurement is at a first acceptable level relative to the dew point;

means for activating a heating unit if the first determination is not at the first acceptable level;

means for reading a second cabinet surface temperature measurement adjacent to the seal of the door of the refrigerator or freezer body;

means for reading a second ambient temperature measurement;

means for making a second determination of whether the second cabinet surface temperature is at a second acceptable level relative to the second ambient temperature measurement; and

means for deactivating the heating unit if the second determination is at the second acceptable level.

16 (canceled).

17 (previously presented). The system of claim 15, further comprising:

means for continually supplying heat if the second cabinet surface temperature measurement is not equal to the second ambient temperature measurement.

18 (previously presented). The system of claim 15, wherein the means for reading a first cabinet surface temperature measurement and the means for reading a second cabinet surface temperature measurement comprise at least one surface temperature sensor.

19 (previously presented). The system of claim 15, wherein the means for reading a first ambient temperature measurement and the means for reading a second ambient temperature measurement comprise at least one ambient temperature sensor.

20 (previously presented). The system of claim 15, wherein the means for reading an ambient relative humidity measurement comprises an ambient relative humidity sensor.

21 (previously presented). The system of claim 15, wherein:

the means for reading a first ambient temperature measurement; and

the means for reading an ambient relative humidity measurement are part of a sensor assembly unit.